

**§ 393.205 Wheels.**

(a) Wheels and rims shall not be cracked or broken.

(b) Stud or bolt holes on the wheels shall not be elongated (out of round).

(c) Nuts or bolts shall not be missing or loose.

**§ 393.207 Suspension systems.**

(a) *Axles.* No axle positioning part shall be cracked, broken, loose or missing. All axles must be in proper alignment.

(b) *Adjustable axles.* Adjustable axle assemblies shall not have locking pins missing or disengaged.

(c) *Leaf springs.* No leaf spring shall be cracked, broken, or missing nor shifted out of position.

(d) *Coil springs.* No coil spring shall be cracked or broken.

(e) *Torsion bar.* No torsion bar or torsion bar suspension shall be cracked or broken.

(f) *Air suspensions.* The air pressure regulator valve shall not allow air into the suspension system until at least 55 psi is in the braking system. The vehicle shall be level (not tilting to the left or right). Air leakage shall not be

greater than 3 psi in a 5-minute time period when the vehicle's air pressure gauge shows normal operating pressure.

(g) *Air suspension exhaust controls.* The air suspension exhaust controls must not have the capability to exhaust air from the suspension system of one axle of a two-axle air suspension trailer unless the controls are either located on the trailer, or the power unit and trailer combination are not capable of traveling at a speed greater than 10 miles per hour while the air is exhausted from the suspension system. This paragraph shall not be construed to prohibit—

(1) Devices that could exhaust air from both axle systems simultaneously; or

(2) Lift axles on multi-axle units.

[53 FR 49402, Dec. 7, 1988, as amended at 70 FR 48055, Aug. 15, 2005]

**§ 393.209 Steering wheel systems.**

(a) The steering wheel shall be secured and must not have any spokes cracked through or missing.

(b) *Steering wheel lash.* (1) The steering wheel lash shall not exceed the following parameters:

Steering wheel diameter	Manual steering system	Power steering system
406 mm or less (16 inches or less) .....	51 mm (2 inches) .....	108 mm (4¼ inches).
457 mm (18 inches) .....	57 mm (2¼ inches) .....	121 mm (4¾ inches).
483 mm (19 inches) .....	60 mm (2½ inches) .....	127 mm (5 inches).
508 mm (20 inches) .....	64 mm (2½ inches) .....	133 mm (5¼ inches).
533 mm (21 inches) .....	67 mm (2¾ inches) .....	140 mm (5½ inches).
559 mm (22 inches) .....	70 mm (2¾ inches) .....	146 mm (5¾ inches).

(2) For steering wheel diameters not listed in paragraph (b)(1) of this section the steering wheel lash shall not exceed 14 degrees angular rotation for manual steering systems, and 30 degrees angular rotation for power steering systems.

(c) *Steering column.* The steering column must be securely fastened.

(d) *Steering system.* Universal joints and ball-and-socket joints shall not be worn, faulty or repaired by welding. The steering gear box shall not have loose or missing mounting bolts or cracks in the gear box or mounting brackets. The pitman arm on the steering gear output shaft shall not be loose. Steering wheels shall turn freely

through the limit of travel in both directions.

(e) *Power steering systems.* All components of the power system must be in operating condition. No parts shall be loose or broken. Belts shall not be frayed, cracked or slipping. The system shall not leak. The power steering system shall have sufficient fluid in the reservoir.

[53 FR 49402, Dec. 7, 1988, as amended at 70 FR 48055, Aug. 15, 2005]

**PART 394 [RESERVED]**